

Amdt. filed December 3, 2009
Responding to office action mailed August 3, 2009
App. Ser. No. 10/587,540

AMENDMENTS TO THE DRAWINGS

The attached sheet of drawings includes changes to FIGS. 22 and 23. This sheet, which includes FIGS. 22 and 23, replaces the original sheet including FIGS. 22 and 23. In FIG. 22, one of the dimension identifiers ('H1') was removed. In FIG. 23, one of the dimension identifiers ('H2') was removed.

Attachment: Replacement Sheet

Annotated Sheet Showing Changes

REMARKS/ARGUMENTS

Reconsideration and allowance of the above-identified application are respectfully requested. Claim 1 is amended herein. Claim 4 is amended to depend from claim 1. Claims 11 and 15 are amended to correct a minor informality to be consistent with terminology used in independent claim 1. Claims 2 and 3 have been canceled. Upon entry of this Amendment, claims 1 and 4-15 will be pending.

In the office action, the Examiner states that the term “integrated” was not given patentable weight. Applicants have amended claims 1 to replace the term “integrated” with the term “coupled.” Reconsideration is respectfully requested, consistent with the following remarks.

In the office action, the Examiner rejected claims 1-4 and 6-7 as being anticipated by newly cited U.S. PG Publication No. 2003/0189033 to Aoyama et al. (hereinafter ‘Aoyama ‘033’). Applicants traverse the rejection on several grounds, and have amended claim 1 to clarify distinctions between embodiments of the present invention and Aoyama ‘033. First, it should be noted that Aoyama ‘033 is directed to an *arc welding* machine wherein the arc welding unit rotates about a flange 3 of a bolt 1 in order to weld the circular flange 3 to a part 44 about the circumference of the flange 3. Aoyama ‘033 does not teach or suggest *electrical resistance welding*, and accordingly does not teach either a movable electrode or a fixed electrode, as recited in claim 1. For this reason alone, the rejection should be withdrawn.

In addition, claim 1, as amended, requires a fixing member for fixing the welding device on a stationary member. Aoyama ‘033, by contrast, lacks such a fixing

member, and attaches the welding device to a movable robot arm. The welding system according to embodiments of the present invention can be selectively rotated by rotating the member main body (70) with respect to the fixed shaft member (71), wherein an axis line of the fixed shaft member is approximately coaxial with a moving axis line of the movable electrode (6). Since the welding system of Aoyama ‘033 can only rotate, if at all, about the hinge 54, the welding system of Aoyama ‘033 cannot be rotated by rotating a member main body with respect to a fixed shaft member, as claimed. For these reasons, the rejection of claim 1 should be withdrawn.

Aoyama ‘033 clearly fails to teach or suggest the additional limitations of claim 3, which have been incorporated into claim 1. Claim 3 requires that the welding *system*, that is, the welding device and the part feeding device, have a rotational position that can selectively be set by rotating the member main body with respect to the fixed shaft member. This is illustrated, for example, in FIG. 2 of the present application and the accompanying description. Aoyama ‘033, by contrast, describes a part feeding device which does not rotate together with the supporting member 27 of the welding device. Rather, the supporting member 27 rotates about supporting shaft 26 in order to move the welding point to different rotated positions, as shown in Fig. 6 of Aoyama ‘033.

Claim 2 and 3 have been canceled, and claims 4 and 6-7 depend from claim 1, and are allowable for at least the same reasons discussed above.

The Examiner has rejected claim 5 under 35 U.S.C. §103(a) as being obvious over Aoyama ‘033 in view of U.S. Patent No. 4,943,098 to Aoyama (hereinafter ‘Aoyama ‘098’). Applicants traverse the rejection since Aoyama ‘098 fails to make up

for the deficiencies discussed above with respect to claim 1. That is, neither Aoyama '033 nor Aoyama '098 teach or describe a welding system that can be selectively rotated by rotating the member main body with respect to the fixed shaft member, as discussed above. Accordingly, the rejection of claim 5 must also be withdrawn.

The Examiner rejected claims 8-15 under 35 U.S.C. §103(a) as being obvious over Aoyama '033 in view of U.S. Patent No. 5,396,842 to Quinci et al. (hereinafter 'Quinci') and further in view of U.S. PG Publication No. 2003/0127432 to Aoyama et al. (hereinafter 'Aoyama '432'). Claims 8-11 depend from claim 1, as discussed above. Neither Quincy nor Aoyama '432 make up for the deficiencies discussed above with respect to claim 1, and accordingly, claims 8-11 are allowable for at least the same reasons.

Furthermore, Applicants traverse the Examiner's application of Aoyama '432 to claims 8 and 12. Aoyama '432 does not describe a support rod that extends vertically, or a clamp block or auxiliary clamp block, as claimed. FIGS. 18-23, and the accompanying description describe the support rod 113, the clamp block 123, which fixes the position of the support rod relative to the fixing rod 115, the auxiliary clamp block 132, which together with the clamp block provide a safe and easy way to adjust the position of the support rod 113. As illustrated in FIGS. 22 and 23, for example, one of the auxiliary clamp blocks 132 is first shifted to secure spacing H1 (FIG. 22) or H2 (FIG. 23). Then, clamp block 123 can safely be released and moved the desired distance H1 or H2. For clarification, corrected FIGS. 22 and 23 are submitted herewith. The corrected versions remove the extra reference to dimensions 'H1' and 'H2', since these dimensions refer to the amount of movement, not a width of either

clamp block. The portion of Aoyama '432 cited by the Examiner describes a piston rod of an air cylinder, which appears to be positioned horizontally, not vertically, and there is simply no description of any structure corresponding to the clamp block and auxiliary clamp block of claims 8 and 12. Accordingly, the rejection must be withdrawn.

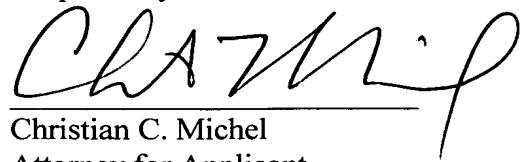
The Examiner's citation of Quinci is also flawed. Quinci at most describes a rod 12 that penetrates a clamp 24. However, the rod of Quinci is not vertically oriented, and Quinci fails to teach or suggest an auxiliary block, as claimed. Furthermore, Quinci is directed to a printing press, which is completely unrelated to a welding system. The Examiner has not provided any reason why one of ordinary skill would combine the various Aoyama references with Quinci, as is required to make a combination rejection under 35 U.S.C. §103. For each of these reasons, the Examiner's rejection of claims 8 and 12 must be withdrawn.

Claims 9-11 depend from claim 8, and claims 13-15 depend from independent claim 12, and accordingly are allowable for at least the reasons discussed above. In addition, none of the cited references teach or suggest the auxiliary clamp block, as recited in claim 14.

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In view of the above, it is believed that the application is in condition for allowance and notice to this effect is respectfully requested. Should the Examiner have any questions, the Examiner is invited to contact the undersigned at the telephone number indicated below.

Respectfully Submitted,



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